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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,232	02/22/2005	Werner Gauweiler.	266122US0PCT	7199

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

ROGERS, JAMES WILLIAM

ART UNIT	PAPER NUMBER
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1618

NOTIFICATION DATE	DELIVERY MODE
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01/22/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/525,232	Applicant(s) GAUWEILER ET AL.	
	Examiner James W. Rogers, Ph.D.	Art Unit 1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-14 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6 and 8-14 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/26/2007 has been entered.

Claim Objections

Claim 1 is objected to because of the following informalities: the limitation "dialkylaminoalkyl(meth)acrylamides" is repeated twice at line 9. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically the claim recites in part f) that the composition contains a salt at 1 to 100% of the saturation amount of the reaction medium. The above limitation is considered indefinite with respect to the amount of salt in solution because the saturation amount

of a salt in solution will vary according to numerous factors such as 1) the type of salt used, 2) The type of solvent and the amount used and 3) the temperature of the solution. Since applicants have only defined the salt by its properties, which are themselves not defined, without an actual recitation of the types of salts that would meet the limitation one of ordinary skill would not be apprised of the scope of applicants invention. It is suggested by the examiner that applicants delete the recitations of weight given as a function of the saturation amount of salt. To expedite the examination process the examiner will search for a salt that is present in a broad percent within the composition.

Response to Arguments

Applicant's arguments filed 10/26/2007 have been fully considered but they are not persuasive. Applicants assert that the language of the salt component (f) within claim 1 is unambiguously clear in that the maximum amount of salt present is the amount of salt that just dissolves at the reaction temperature without forming a precipitate.

As stated in the rejection above since the claim language does not define 1) the exact salts used, 2) the type of solvent and amount used and 3) the temperature one of ordinary skill in the art could not know what the saturation amount of the salt would encompass. Since applicants have only defined the salt by its properties, which are themselves not defined, without an actual recitation of the types of salts that would meet

the limitation one of ordinary skill would not be apprised of the scope of applicants invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2,8-9 and 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Maurin et al. (US 6,403,542, cited previously).

Maurin teaches compositions for washing keratinous materials (especially hair) based on 1) detergent surfactants such as ionic surfactants, 2) 0.005 and 10% by weight of a vinyl lactam cationic polymer comprising at least one cationic group including methylvinylimidazolium salt and 3) 5 to 85% of an acrylic terpolymer. See abstract, examples, col 3 lin 5-23 and claims. The terpolymer could be further crosslinked and comprised most preferably from 20-60% by weight of a monomer (b) chosen from a heterocyclic vinyl compound containing at least one nitrogen or sulfur atom, a methacrylamide, a mono or di alkylamino alkyl methacrylate or a mono or di alkylamino alkyl methacrylamide. See col 1 lin 48-61 col 2 lin 31-40 and. The monomer component (b) above meets the limitation of claim 1 monomer a) and is within the claimed weight range for the monomer as claimed within 1,8 and 9. Regarding the limitation in claim 1g)

that the composition contains at least one colloid, the examiner used applicants specification [0104] to clarify the limitation of what materials satisfy a colloid and found that quaternary ammonium substituted polymers meet the limitation of a colloid. Therefore the cationic vinylactams polymers of Maurin would meet the limitation of a water soluble colloid. Maurin also mentions the use of 0.5-10% by weight of cationic polymers other than vinyl lactams that include quaternary ammonium groups, thus also anticipating the colloid of claim 1 part g). See col 8 lin 17-32. Regarding the limitation in claim 1 f) that the composition contains an organic or inorganic salt, Maurin meets this limitation because the reference teaches the use of fatty acid salts as surfactants in amounts between about 5 to 50% by weight of the composition. See col 4 lin 7-col 5 lin 38. Regarding claims 11 and 12 Maurin teaches the use of numerous crosslinkers including methacrylic esters and acrylic esters in amounts of up to 2%, within applicants claimed range within claims 1 and 12-13. See col 3 lin 5-23. The compositions of Maurin were disclosed as being useful in shampoo compositions, the shampoos yielded improved cosmetic properties to the hair including greater softness and lightness, greater smoothness, sheen and manageability to dried sensitized hair. See col 1 lin 26-38. Regarding the limitation within claim 14 that the composition is applied to the hair as a conditioning agent or thickener, since the composition of Maurin is within the scope of applicants claimed invention and is applied to the hair it is inherent that the composition of Maurin will have the same type of conditioning effect as claimed by applicants.

Response to Arguments

Applicant's arguments filed 01/03/2008 have been fully considered but they are not persuasive. Applicants assert that the polymers of Maurin are prepared by conventional methods and uses commercially available polymers wherein applicants claimed invention the composition comprises cationic polymers produced by a free-radical water-in-water emulsion polymerization. Applicants contend that their examples 1 and 3 made from water-in-water (W/W) emulsions of monomer mixtures demonstrate improved effects on hair with regards to the combing force when compared to examples 4 and 5 that are produced from solution polymerization of the monomers.

The relevance of these assertions is unclear. Applicants' claims as currently amended are drawn to a method of cosmetically treating hair, skin or nails by applying an aqueous polymer dispersion, the claims **are not** drawn to a method of producing an aqueous polymers dispersion. Essentially the limitation within claim 1 that states the cationic polymer is prepared by free radical water-in-water is a product by process type of limitation for the composition; however the composition is not even claimed. Since Maurin teaches applying compositions within the same scope of applicants claimed invention to treat hair all of the limitations of the rejected claims above are met. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Furthermore

applicants have not provided their burden of showing that the cationic polymers of Maurin are in fact different from their claimed cationic polymers, for instance applicants only insist that the cationic polymers of Maurin were bought from commercial sources, however applicants have not showed evidence that these commercially available polymers were not produced from a water-in-water type of polymerization. Even if applicants show evidence that the cationic polymers of Maurin are produced from a different method the claims must recite a limitation on treating hair that is not recited or inherent from the teachings of Maurin. Regarding applicants assertion that examples 1 and 3 produced from water-in-water emulsions have improved effects than examples 4 and 5 produced by solution polymerization, as described above applicants have not provided evidence that the commercial cationic polymers of Maurin are not produced by W/W emulsions. Also independent claim 1 does not recite a feature or property for the method of treating the hair that would preclude the hair compositions of Maurin.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3,6 and 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schade et al. (US 5,962,613, disclosed in last action) in view of Maurin et al. (US 6,403,542).

Maurin is disclosed above. Maurin while disclosing the use of vinyl lactam cationic polymer comprising at least one cationic group including methylvinylimidazolium salt, is silent on if the cationic polymer is crosslinked as required within claim 1. Therefore the vinyl lactam cationic polymers of Maurin does not teach applicants claimed limitation of the cationic polymer claimed in 1a)-e).

Schade discloses water soluble crosslinked copolymers comprising a) 10-89.5% by weight monomers of vinyl imidazoles of formula (I) and monomers of formula (II) including N-vinylcaprolactam and mixtures of said monomers B) 0-89.5% by weight of

other copolymerizable monoethylenically unsaturated monomers, including charged quarternized monomers such as vinylimidazole and C) 0.5-30% by weight of at least one monomer which acts as a crosslinker and has at least two non-conjugated ethylenic double bonds, the polymers were recited as being useful in cosmetic formulations. See col 2 lin 22-col 4 lin 65, col 9 lin 13-14 and claims 1-3.

It would have been prime facie obvious to a person of ordinary skill in the art at the time the claimed invention was made to combine the art described in the documents above because both references pertain to cosmetic compositions containing cationic vinylactams and one skilled in the art would have a reasonable expectation of success in adding a cationic vinylactam within one reference and substituting it for the other polymer. Thus the claimed invention would have been *prima facie* obvious because the substitution of one known element such as cationic vinylactams disclosed within Maurin for another known element such as the crosslinked cationic vinylactam/ vinylimidazole disclosed within Schade would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Response to Arguments

Applicant's arguments filed 01/03/2008 have been fully considered but they are not persuasive. Applicants assert as in the above remarks on Maurin that the polymers of Maurin and Schade are prepared by conventional methods wherein applicants claimed invention the composition comprises cationic polymers produced by a free-radical water-in-water emulsion polymerization. Applicants contend that examples 1 and 3 from the specification are made from water-in-water (W/W) emulsions of monomer

mixtures which have a higher solids content than example 4 and show no build-up structure which is highly desirable in a cosmetic formulation. Applicants lastly state that the their shampoo preparation exemplified in shampoos 6-8 have a superior reduction in combing force when compared to shampoos 9-10 which are within the scope of Schade because the shampoos are derived from solution polymers.

The relevance of these assertions is unclear. Applicants claims as currently amended are drawn to a method of cosmetically treating hair, skin or nails by applying an aqueous polymer dispersion, the claims **are not** drawn to a method of producing an aqueous polymers dispersion. Essentially the limitation within claim 1 that states the cationic polymer is prepared by free radical water-in-water emulsion polymerization is a product by process type of limitation for a composition; however a composition is not claimed. Since the combination of Schade and Maurin disclose applying compositions within the same scope of applicants claimed invention to treat hair all of the limitations of the rejected claims above are met. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In order for applicants claims not to read on the combination above applicants must recite a limitation on treating hair that is not obvious from the disclosures of Schade and Maurin. The relevance of applicants assertion that examples

1 and 3 produced from water-in-water emulsions have improved structure, high solid content and shampoo properties than examples 4 and 5 produced by solution polymerization is unclear. Firstly applicant's claim 1 does not claim a shampoo which softens hair so that a particular applied force can comb it is not claimed, therefore this argument does not appear to be relevant to the claimed invention. Furthermore applicants also do not claim a particular solids content within claim 1, therefore once again this argument does not appear to be relevant to the claimed invention. As described above independent claim 1 does not recite a feature or property for the method of treating the hair that would preclude the combination of Schade and Maurin. Since the method of treating hair by applying the composition disclosed by the combination of Schade and Maurin falls within the scope of applicants claimed invention all limitations within the currently amended claims are considered met.

Conclusion

No claims are allowed. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James W. Rogers, Ph.D. whose telephone number is (571) 272-7838. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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MICHAEL G. HARTLEY
SUPERVISORY PATENT EXAMINER